What is claimed is:

1. An isolated NAIL nucleic acid molecule selected from the group consisting of:

(a) the DNA sequence of SEQ ID NO:1;

(b) an isolated nucleic acid molecule encoding an amino acid sequence comprising the sequence of SEQ ID NO:2;

(c) an isolated nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) or (b) under conditions of moderate stringency in 50% formamide and 6XSSC, at 42°C with washing conditions of 60°C, 0.5XSSC, 0.1% SDS;

(d) an isolated nucleic acid molecule derived by *in vitro* mutagenesis from SEQ ID NO:1;

(e) an isolated nucleic acid molecule degenerate from SEQ ID NO:1 as a result of the genetic code; and

(f) fragments thereof comprising at least 25 contiguous nucleotides.

2. A recombinant vector that directs the expression of the nucleic acid molecule of claim 1.

3. An isolated polypeptide encoded by the nucleic acid molecule of claim 1.

4. Isolated antibodies that bind to a polypeptide of claim 3, wherein said antibodies bind to an epitope other than that bound by C1.7 mAb.

5. Isolated antibodies according to claim 4, wherein the antibodies are monoclonal antibodies.

6. A host cell transfected or transduced with the vector of claim 2.

7. A method for the production of NAIL polypeptide comprising culturing a host cell of claim 6 under conditions promoting expression, and recovering the polypeptide from the culture medium.

8. The method of claim 7, wherein the host cell is a mammalian cell.

9. An immunogenic composition comprising a recombinant or synthetic NAIL polypeptide and a physiologically acceptable diluent.

10. A DNA fragment of SEQ ID NO:1, wherein said fragment encodes a polypeptide that inhibits cell activation through NAIL.

11. A DNA fragment of SEQ ID NO:1, wherein said fragment encodes a polypeptide that stimulates cell activation through CD48.

12. A DNA fragment of SEQ ID NO:1, wherein said fragment encodes a polypeptide that binds CD48.

13. A peptide fragment of SEQ ID NO:2, wherein said fragment inhibits cell activation through NAIL.

14. A peptide fragment of SEQ ID NO:2, wherein said fragment stimulates cell activation through CD48.

15. A peptide fragment of SEQ ID NO:2, wherein said fragment binds CD48.

16. An oligomer comprising at least two monomers of a polypeptide of claim 3.

17. A method for detecting CD48 comprising:
(A) providing biological material comprising CD48;
(B) contacting said material with NAIL polypeptide; and
(C) detecting the complexes formed.

18. A method for chelating CD48 comprising:
(A) providing biological material comprising CD48; and
(B) contacting said material with soluble NAIL polypeptide.

19. A method for inhibiting the binding of CD48 with NAIL polypeptide on the cell surface comprising:

(A) providing biological material comprising CD48 and a cell comprising NAIL on the cell surface;

(B) adding soluble NAIL polypeptide to said material.

20. A method of screening for inhibitors of the binding of CD48 with NAIL polypeptide comprising:

(A) providing a NAIL polypeptide;

(B) providing a CD48 polypeptide;

(C) providing a test sample;

(D) mixing said NAIL polypeptide with said CD48 polypeptide under conditions that said NAIL polypeptide binds with said CD48 polypeptide;

(E) mixing said NAIL polypeptide with said CD48 polypeptide under conditions as in (D) in the presence of said test sample; and

(F) comparing the level of complexes formed in the presence and absence of said test compound, wherein a lower level of complexes in the presence of said test sample is indicative of the presence of an inhibitor in said test sample

21. The method of claim 20, wherein said method is a yeast two-hybrid assay.

22. The method of claim 20, wherein said NAIL polypeptide or said CD48 polypeptide is attached to a microtiter plate.

23. A method of stimulating B cells comprising:

(A) providing a soluble NAIL polypeptide; and

(B) contacting said polypeptide with a B cell expressing CD48.

24. The method of claim 23, wherein said B cell is activated with IL-4, IL-10, or CD40L.

25. The method of claim 23, wherein said B cell is activated with soluble human CD40L.

26. The method of claim 23, wherein an immunogen or vaccine is incubated with said cells.

27. A method for stimulating NK cells comprising:

(A) providing soluble human CD48; and

(B) contacting said soluble human CD48 with an NK cell expressing NAIL polypeptide.

28. A method for stimulating cytotoxic T cells comprising:

(A) providing soluble human CD48; and

(B) contacting said soluble human CD48 with a cytotoxic T cell expressing NAIL polypeptide.

29. A method of inhibiting the proliferation of cancer cells comprising:

(A) providing a soluble NAIL polypeptide; and

(B) contacting said polypeptide with a cancer cell expressing CD48.

30. A method for chelating soluble CD48 in a patient comprising administering a composition comprising soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to soluble CD48.

31. A method for inhibiting the binding of CD48 with NAIL on the cell surface in a patient comprising administering a composition comprising soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to CD48.

32. A method for inhibiting the binding of NAIL with CD48 on the cell surface in a patient comprising administering a composition comprising soluble CD48 polypeptide to a patient, wherein the CD48 polypeptide binds to NAIL.

33. A method for stimulating B cells in a patient comprising administering a composition comprising soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to CD48 on said cells.

34. The method of claim 33, wherein said method increases the secretion of IgM by B cells.

35. A method for stimulating dendritic cells in a patient comprising administering a composition comprising soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to CD48 on said cells.

36. The method of claim 35, wherein said method increases the production of TNFα or IL-12 by dendritic cells.

37. A method for stimulating NK cells in a patient comprising administering a composition comprising soluble human CD48 to a patient, wherein the CD48 binds to NAIL polypeptide on the cells.

38. The method of claim 32, wherein said method increases the production of IFNγ by the NK cells.

39. A method for stimulating cytotoxic T cells in a patient comprising administering a composition comprising soluble human CD48 to a patient, wherein the CD48 binds to NAIL polypeptide on the cells.

40. A method for inhibiting the stimulation of NK cells in a patient comprising administering a composition comprising a soluble CD48 polypeptide to a patient, wherein the CD48 polypeptide binds to NAIL on the cells and prevents stimulation of the cells through NAIL.

41. A method for inhibiting the stimulation of cytotoxic T cells in a patient comprising administering a composition comprising a soluble CD48 polypeptide to a patient, wherein the

CD48 polypeptide binds to NAIL on the cells and prevents stimulation of the cells through NAIL.

42. A method for inhibiting the stimulation of B cells in a patient comprising administering a composition comprising a soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to CD48 on the cells and prevents stimulation of the cells through CD48.

43. A method for inhibiting the stimulation of dendritic cells in a patient comprising administering a composition comprising a soluble NAIL polypeptide to a patient, wherein the NAIL polypeptide binds to CD48 on the cells and prevents stimulation of the cells through CD48.

44. A NAIL polypeptide comprising amino acids 22-221 of SEQ ID NO:2.

45. The polypeptide of claim 44, wherein the polypeptide is soluble.

46. The polypeptide of claim 44, wherein the polypeptide comprises amino acids 1-221 of SEQ ID NO:2.

47. The polypeptide of claim 44, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8.

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